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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/492,802	01/28/2000	Jong Hoon Yi	2658-0183P	1395

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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

CHUNG, DAVID Y

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/492,802

Applicant(s)

YI ET AL.

Examiner

David Y. Chung

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23 and 24 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,7-15,17,19-22,25 and 26 is/are rejected.
- 7) ☒ Claim(s) 3,6,16 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- 1. Claims 1, 2, 4, 7-15, 17, 19-22, 25 and 26 rejected under 35 U.S.C. 102(e) as being anticipated by Izumi (U.S. 6,417,898).**

As to claims 1, 10, 13, 15 and 19, Izumi discloses a liquid crystal display device with the color filter disposed on the active matrix substrate. See figure 1. Note scanning line 6, signal line 7, and pixel electrode 9. Note TFT 8, comprising: gate electrode 21, gate insulating film 22, semiconductor layer 23, source electrode 24 and drain electrode 25. Insulating layer 11 is interpreted as being a barrier rib during formation of the color filters as shown in figures 4(a)-4(d). Izumi discloses in column 6, lines 37 – 52 that various methods including ink jetting can be used to form the color filter. Note the gate insulating film 22, which acts as a protective layer. The color filter is formed over this protective layer.

As to claims 2, 11 and 22, Izumi discloses that the insulating layer 11 is produced by material such as SiN or acrylic resin. See column 5, lines 1 – 7. An acrylic resin insulating layer is a low reflective layer.

As to claims 4 and 12, Izumi discloses that the insulating layer 11 in figure 1 can be replaced with a black matrix 31 as shown in figure 8. See column 9, lines 35-55.

As to claims 7, 8, 14, 20 and 21, figure 2 of Izumi shows that the insulating layer 11 has stripe-shaped portions arranged so as to overlap both the data lines and gate lines. Furthermore, these stripe-shaped portions define column areas that include the pixel cells in which the color filters are formed.

As to claim 17, note the gate insulating film 22, which acts as a protective layer. The color filter is formed over this protective layer.

As to claim 9, all liquid crystal displays inherently have a second substrate opposing the first substrate, with liquid crystal between the two substrates.

As to claims 25 and 26, each limitation recites forming a specific structural element shown in figure 1 of Izumi. The claims are therefore anticipated.

Response to Arguments

- 2. Applicant's arguments filed June 16, 2003 have been fully considered but they are not persuasive.**

Although the insulating layer 11 disclosed by Izumi is produced in a matrix form, it still comprises portions that can be considered barrier lines extending in a direction parallel to the data lines. Because applicant's claim language does not exclude devices having additional insulating barrier lines, Izumi still anticipates the claims.

Allowable Subject Matter

- 3. Claims 23 and 24 allowed.**

The following is a statement of reasons for the indication of allowable subject matter: the prior art did not teach or suggest patterning the gate and data lines using the barrier lines as a mask, or removing the barrier lines after forming the color filter and forming separate light shielding lines.

- 4. Claims 3 and 16 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

The following is a statement of reasons for the indication of allowable subject matter: the prior art did not teach or suggest forming contact holes in the barrier lines to expose the drain electrode. Given the structure of the device as shown in figure 1, examiner believes that this would not have been an obvious modification.


5. Claims 6 and 18 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art did not teach or suggest forming the pixel electrodes over the color filters. Given the structure of the device as shown in figure 1, examiner believes that this would not have been an obvious modification.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Chung whose telephone number is (703) 306-0155. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.

David Chung
GAU 2871
09/07/03


ROBERT H. KIM
SUPERVISOR/PATENT EXAMINER
TECHNOLOGY CENTER 2800